



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/697,901      | 10/29/2003  | Cesar H. Proano      | 005513.P015         | 9235             |

7590 07/25/2007  
Daniel E. Ovanezian  
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP  
Seventh Floor  
12400 Wilshire Boulevard  
Los Angeles, CA 90025-1026

|          |
|----------|
| EXAMINER |
|----------|

RAHMJOO, MANUCHER

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2624

|           |               |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

07/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/697,901

Applicant(s)

PROANO ET AL.

Examiner

Mike Rahmjoo

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1- 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Bir et al (US Patent 6108438), hereinafter, Bird.

As per claim 1 Bird teaches an insulator having a bottom surface corresponding to for example fig. 3 block 15;

a pixel array coupled to the insulator corresponding to for example fig. 3 block 33. At the time the invention was made, it would have been obvious to incorporate pixel array coupled to the bottom surface of the insulator because applicant does not disclose said feature as providing an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform with pixel array coupled to surfaces other than the bottom surface of the insulator;

a conductive structure adjacent to the pixel array, the conductive structure exposed for physical contact with a body part of a user (e.g., individual finger portions) corresponding to for example column 9 lines 52- 55 wherein strips of conductive

Art Unit: 2624

material (corresponding to conductive material) may be provided directly on the upper surface of the insulating layer 25 of the device;

and a first signal generator coupled to the conductive structure corresponding to for example column 6 line 47.

As per claim 2 Bird teaches the pixel array comprises amorphous silicon (a- Si) transistors corresponding to for example column 5 line 35.

As per claim 3 Bird teaches the a-Si pixel array is the basis for a thin film transistor ("TFT") flat panel detector corresponding to for example column 10 line 10.

As per claim 4 Bird teaches the conductive structure is configured to reside underneath a contacting portion of a pad corresponding to for example fig. 3 and column 9 lines 53- 55 wherein strips of conductive material may be provided directly on the upper surface of the insulating layer 25

As per claim 5 Bird teaches the first signal generator is configured to drive a charge through the insulator corresponding to for example column 6 lines 50- 57 wherein various potential and driving schemes are used.

As per claim 6 Bird teaches the first signal generator generates a pulse corresponding to for example column 6 lines 47 wherein a pulse is generated.

As per claim 7 Bird teaches the pulse has a negative potential corresponding to for example column 9 line 29 through the application of negative voltage pulse.

As per claim 8 Bird teaches the first signal generator generates a signal that changes its voltage amplitude corresponding to for example column 9 line 33 wherein the voltage is returned to zero from a negative value.

As per claim 9 Bird teaches a plurality of electrodes coupled to the insulator corresponding to for example fig. 3 blocks 33; and a plurality of storage capacitors, each of the plurality of storage capacitors coupled to a corresponding one of the plurality of electrodes corresponding to for example fig. 3 blocks 35; and a second signal generator coupled to the plurality of storage capacitors on a side opposite that of the plurality of electrodes corresponding to for example fig. 2- 7 and column 6 line 46 wherein each amplifier is connected to a pulse generation circuit within the sense circuit and column 10 lines 30 35 wherein the array is driven by plurality of pulse signals.

As per claim 10 Bird teaches the second signal generator is configured to drive a charge directly into the plurality of storage capacitors through the side opposite that of the plurality of electrodes corresponding to for example column 10 lines 30- 35 wherein the array is driven by plurality of pulse signals including a first positive pulse and a negative pulse signal.

As per claim 11 Bird teaches the second signal generator generates a pulse corresponding to for example column 10 lines 30- 35 wherein plurality of pulse signals including a first positive pulse and a negative pulse signal exist.

As per claim 12 Bird teaches the pulse has a negative potential corresponding to for example column 10 line 33.

As per claim 13 Bird teaches the second signal generator is configured to drive a first charge through the side opposite that of the plurality of electrodes into the plurality

Art Unit: 2624

of storage capacitors, and wherein the first signal generator is coupled to the conductive structure to drive a second charge through the insulator corresponding to for example column 9 lines 45- 50 wherein the voltage pulses applied to the column conductors 20 could be provided by a separate circuit connected to the column conductors, for example at their ends remote from the column amplifiers 40, rather than via the amplifiers and also column 10 lines 10- 35 for the positive and negative selection pulses as corresponding to the first and second generation pulses.

As per claim 14 Bird teaches the conductive structure surrounds the pixel array corresponding to for example fig. 1 blocks 18 and 20.

As per claim 15 Bird teaches fingerprint recognition system comprising the apparatus according to claim 1 corresponding to for example the title and device of fig.1.

As per claim 16 and in light of the rejections made above Bird teaches a plurality of storage capacitors, each of the plurality of storage capacitors coupled to a corresponding one of the plurality of electrodes corresponding to for example fig. 3 and 5 and cap. 35 and 51;

driving a first charge through the finger into at least one of the plurality of storage capacitors corresponding to for example fig. 3 and 7 and column 10 lines 10- 35 for any of the positive and negative pulse signals as corresponding to first charge.

As per claim 17 Bird teaches the first charge is driven through the finger using a first pulse corresponding to for example column 6 lines 5-35 wherein the diodes are

Art Unit: 2624

used to charge and discharge the capacitance formed between the finger portion and the sense electrode.

As per claim 18 Bird teaches the first pulse has a negative voltage corresponding to for example column 10 lines 10- 35 for the positive and negative selection pulses as corresponding to the first and second generation pulses.

As per claim 19 Bird teaches the first charge is driven into a first contact of the storage capacitor coupled to a corresponding electrode corresponding to for example fig. 3 capacitors 35 and the corresponding electrodes.

As per claim 20 Bird teaches driving a second charge into a second contact of the storage capacitor corresponding to for example fig. 3, 5 and 7 and column 10 lines 10- 35 for the positive and negative selection pulses as corresponding to the first and second generation pulses.

As per claim 21 Bird teaches the second charge is driven directly into the storage capacitor using a pulse corresponding to for example columns 7 and 10 lines 10- 35 for the positive and negative selection pulses as corresponding to the first and second generation pulses.

As per claim 22 Bird teaches the pulse has a negative voltage corresponding to for example column 10 lines 10- 35 for the negative selection pulses as corresponding to the first or second generation pulses.

As per claim 23 Bird teaches driving a second charge into a second contact of the storage capacitor, wherein the second charge is driven directly into the storage capacitor using a second pulse corresponding to for example column 10 lines 10- 35

Art Unit: 2624

for the positive and negative selection pulses as corresponding to the first and second generation pulses which is made through capacitors 35.

As per claim 24 Bird teaches the first pulse has a positive voltage column 10 lines 10- 35 for the positive selection pulses as corresponding to the first or second generation pulses.

As per claim 25 Bird teaches the first pulse has a voltage difference in the approximate range of 0.5V to IV corresponding to for example column 8 lines 5- 67 through column 9 lines 1- 37 wherein the charge or voltage difference is about 1 volt (or higher) which is in accordance with applicant's disclosure in [0034].

Claims 26- 27 are substantially similar to claims 1- 24 and are rejected using the same rational.

### ***Response to Arguments***

Applicant's arguments filed 07/06/2007 have been fully considered but they are not persuasive.

The newly added limitations to claims 1,16 and 26 are currently rejected herewith.



***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### **Inquiry**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Rahmjoo whose telephone number is 571-272-7789. The examiner can normally be reached on 8 AM- 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mike Rahmjoo

July 17, 2007



MATTHEW C. BELLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600